AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-184

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-184.01
Getting Ready for ARISSat-1/RadioSkaf-V Operation

AMSAT News Service Bulletin 184.01
From AMSAT HQ SILVER SPRING, MD.
July 3, 2011
To All RADIO AMATEURS
BID: $ANS-184.01

Getting Ready for ARISSat-1/RadioSkaf-V Operation

Here are some reminders to help you get your station ready for ARISSat-1/
RadioSkaf-V operation. Your 2-meter FM radio or HT will work well to receive the FM voice messages and SSTV on the 145.950 MHz downlink.

You will need a SSB-capable receiver to copy the BPSK telemetry beacon, the CW beacons, and the linear transponder passband.

Read about the details ...

145.950 MHz FM Downlink:
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FM transmissions will cycle between a voice ID as RS01S, select telemetry values, 24 international greeting messages in 15 languages and SSTV images. One of the messages will be a conversation between Yuri Gagarin and ground control.

435 MHz - 145 MHz Linear Transponder:
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The linear transponder will operate in Mode U/V (70 cm Up, 2m Down). It is an 16 KHz wide inverting passband and the convention will be to TX LSB on the 435 MHz uplink and RX USB on the 145 MHz downlink. This mode is designed to work with low power transmitters and omni antenna.

145.919 MHz/145.939 MHz CW Beacon:
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The CW transmissions will be callsign ID RS01S, select telemetry, and callsigns of people actively involved with the ARISS program.

145.920 MHz SSB BPSK-1000 Telemetry:
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The BPSK transmissions will feature a new 1kBPSK protocol developed by Phil Karn, KA9Q to be readable in low signal level conditions. The BPSK data will transmit satellite telemetry.

The ARISSat-1/RadioSkaf-V BPSK-1000 downlink is transmitted in SSB mode on 145.920 MHz. When the CW2 beacon on 145.919 MHz is active this indicates that the BPSK-1000 format is being transmitted. If the CW1 beacon on 145.939 MHz is active this indicates the backup of BPSK-400 format is being transmitted.

Transmitting at 100 mW, both BPSK rates include Forward Error Correction (FEC) and it is expected that modest quarter-wave antennas with low-loss

coaxial cable will provide sufficient signal strength for decoding and display by the ARISSatTLM software.

Download the Windows ARISSatTLM free ground station soundcard demodulator
and display software:
http://www.arissattlm.org/download/ARISSatTLM_050_Setup.exe

Download the Mac ARISSatTLM software:
http://www.arissattlm.org/download/ARISSATTLM.zip

The ARISSatTLM software user guide is available:
http://tinyurl.com/42uhtyf (amsat.org)

Get your color ARISSat-1/RadioSkaf-V Frequency Guide:
http://tinyurl.com/4t497t2 (amsat.org)

ARISSat-1/RadioSkaf-V Presentation Slides (~1MB)
http://tinyurl.com/4n4pzkm
(amsat.org)

[ANS thanks the ARISSat-1/RadioSkaf-V Team for the above information]

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SB SAT @ AMSAT $ANS-184.02
Call For Articles - Brief Author's Guide to the AMSAT Journal

AMSAT News Service Bulletin 184.02
  From AMSAT HQ SILVER SPRING, MD.
July 3, 2011
To All RADIO AMATEURS
BID: $ANS-184.02

You are invited to share your amateur radio in space ideas and experiences with fellow satellite operators. The AMSAT Journal, a bi-monthly publication of AMSAT-North America, brings you the latest information in satellite mission planning, satellite- related hardware design and construction, satellite-related software design and implementation, and amateur radio earth station construction.

There are plenty of opportunities for you to share your ideas and experience across all levels. Did you homebrew a successful antenna?  Which setup did you use for your first satellite contacts?  A brief write-up and photos are appreciated by everyone!

Do you have ideas about future amateur radio space missions? Can you describe unique aspects of a particular orbit and the equip- ment needed

to make it work? Simply type out your ideas on your computer and send them
in. Let the AMSAT Journal editorial team do the clean up and formatting for you.

Its easy to send your article to the AMSAT Journal e-mail box via journal@amsat.org. There is no need to do any special formatting on your

submission because the final layout format is driven by the magazine's typesetting software. All you need to include is:

+ Your text in MS-Word or plain text format Graphics saved in separate
+ files (jpg, gif, tiff)

(Actually, an MS-Word file with embedded graphics is the most difficult format to typeset.)

If you have any questions, or need some help feel free to contact the editors at the AMSAT Journal at journal@amsat.org. One of us will get back to you as soon as we can.

Ed Long, WA4SWJ Editor-in-Chief
Bill Hook, W3QBC Assistant Editor

[ANS thanks the AMSAT Journal for the above information]

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SB SAT @ AMSAT $ANS-184.03
DX & Rare Grids

AMSAT News Service Bulletin 184.03
From AMSAT HQ SILVER SPRING, MD.
July 3, 2011
To All RADIO AMATEURS
BID: $ANS-184.03

+ Listen for Eric W4OTN, Amanda KI4IWS, Robin WA4WPD, Bill KG4CXY on July 29 to August 1 as they activate N4I from Core Banks Barrier Island (IOTA NA-067, USi NC033S, WLOTA 0596), Pamlico County, North Carolina. They will participate in the RSGB IOTA Contest. Outside of the contest they plan to be active 80-10m CW and SSB. Operation on 6m and satellites is being planned as well. QSL W4OTN via the bureau or direct at the address on QRZ.com. (rsgbiota.org)

+ Paul, 2E1EUB will be operating mobile on AO-7 and other satellites from the Islands of Harris and Lewis, off the west coast of Scotland for about 2 weeks between July 2-11. During this trip Paul will also be mobile in northern Scotland and the Island of Skye. He will also post information on his QRZ.com callsign lookup for 2E1EUB.

[ANS thanks Eric, Amanda, Robin, Bill & Paul for the above information]

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SB SAT @ AMSAT $ANS-184.04
Reminder: The DARA Matching Gift Challenge

AMSAT News Service Bulletin 184.04
From AMSAT HQ SILVER SPRING, MD.
July 3, 2011
To All RADIO AMATEURS
BID: $ANS-184.04

The Dayton Amateur Radio Association (DARA) has announced a fund raising challenge for AMSAT whereby they will match on a 1:3 basis up to $5,000.00 for donations made in 2011. That is, for every $3.00 that AMSAT raises, DARA will provide $1.00 up to amaximum of $5,000 donated by DARA.

AMSAT kicked off the fundraising campaign at the Hamvention, where donations began count against this goal. Please consider making a donation to AMSAT at Hamvention or anytime this Spring as we strive to meet this goal.

We appreciate DARA's support for AMSAT and see this as an opportunity for donors to increase the impact of their donations by taking advantage of this matching program.

[ANS thanks AMSAT Headquarters for the above information]

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SB SAT @ AMSAT $ANS-184.05
Satellite Shorts From All Over

AMSAT News Service Bulletin 184.05
From AMSAT HQ SILVER SPRING, MD.
July 3, 2011
To All RADIO AMATEURS
BID: $ANS-184.05

+ The dates for the July Hudson Valley Satcom net are July 7 and July 21 at 8:00 PM Eastern Daylight Time (UTC - 4). You can tune in via the 146.970 MHz Mt. Beacon repeater, PL 100.0 or via EchoLink on the N2EYH-L node. More info is available at: www.hvsatcom.org (Stu, WA2BSS)

+ NASA Jet Propulsion Laboratory posted an 11-minute animation depicting key events of NASA's Mars Science Laboratory mission, which will launch in late 2011 and land a rover, Curiosity, on Mars in August 2012. Watch on-line at: http://tinyurl.com/6bx2g3r (nasa.gov)

+ AMSAT can be found on Facebook at: http://www.facebook.com/home.php?sk=group_7828379515

+ Luis, LU6QI continues to enjoy success with the fine art and science of stretching the AO-7 footprint. He reports DX contacts with Louis, KD5GM on CW on AO7 Mode B, June 22 for a distance of 7631 km. Luis had a DX contact with Allen, N5AFV, on June 24 via CW on AO7 Mode B for a distance of 7644 km.

+ Nader ST2NH appeared on Ashorooq TV to describe the University of Khartoum Cubesat project - KN-Sat1. The 11 minute interview was in Arabic and can be seen on the Southgate ARC News Website at: http://tinyurl.com/66lab38 (Southgate)

+ John, K8YSE posted Field Day recordings for AO-51, AO-27 and SO-50 on his website: http://www.papays.com/sat

+ AMSAT has received the sad news of the death of Leanore Guimont, KA6UCD, the wife of Dave, WB6LLO. For many years no Symposium would be complete without the Dave and Leanore "jewelry" contest. Our thoughts and prayers go out to Dave. He has requested no cards or email be sent.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-184.06
ARISS Status - 27 June 2011

AMSAT News Service Bulletin 184.06
From AMSAT HQ SILVER SPRING, MD.
July 3, 2011
To All RADIO AMATEURS
BID: $ANS-184.06

Amateur Radio on the International Space Station (ARISS) Status Report June 27, 2011

1. Japanese Contact Successful

On Tuesday, June 21, an Amateur Radio on the International Space Station (ARISS) contact was held between Nankan 4th Elementary School in Tamanagun, Kumamoto, Japan and on-orbit astronaut Satoshi Furukawa, KE5DAW. There was a delay in making contact, but once established, the students got in nine questions. This unique activity supplemented lesson plans about amateur radio technology and the International Space Station

mission. An audience of approximately 100 attended the event which was covered by 5 newspapers and 5 television stations, including NHK (Japan Broadcasting Corporation).

2. ARISS International Team Teleconference Held

The monthly ARISS International Team meeting was held on Tuesday, June 21. Topics covered included the upcoming ARISS Face to Face meeting

in October and a status on the ARISSat-1 satellite, designated KEDR in Russia. Minutes have been posted:
https://www.rac.ca/ariss/arisstel2011-06-21.htm

3. News of U.S. ARISS Proposal Process Distributed

The NASA EXPRESS message sent on June 16 included an item on ARISS contact opportunities for U.S. schools using the new proposal process. Also made aware of these opportunities were other U.S. education organizations such as Solar System Ambassadors, Space Grant Community, INSPIRE, WISH, Endeavor Fellows and the Museum Alliance.

4. Astronaut Training Status

Don Pettit, KD5MDT, and Andr[illegible] Kuipers, PI9ISS, were given an ARISS pre-
flight session on June 22. The two astronauts hope to participate in ARISS contacts during their flight with Expedition 30 which will launch in November 2011.

5. ARISS Items in ARRL Letter

The American Radio Relay League (ARRL) ran two ARISS items in its June 23 ARRL Letter. The first story is about the astronauts who recently passed their amateur radio Technician exams and were issued call signs. This piece is titled "NASA Astronauts and Astronaut Candidates Earn Amateur Radio Licenses." The second item is titled "Field Day from Space: International Space Station Could be Active for ARRL Field Day." Both stories may be viewed at:
http://www.arrl.org/arrlletter?issue 11-06-23

6. AMSAT Covers ARISS Proposal

The AMSAT (Radio Amateur Satellite Corporation) News Service June 26 bulletin (ANS-177) included another announcement about the new ARISS proposal process for U.S. schools. "July 15 Deadline to File ARISS Contact Proposals" may be found here:
http://amsat.org/pipermail/ans/2011/000526.html

[ANS thanks Carol, KB3LKI, for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT  Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Dee Interdonato, NB2F